REMARKS/ARGUMENTS

The Office Action dated February 21, 2006 rejected Claims 1-22. Claims 1, 2, 7, 10, 11, 16, 17 and 20-22 are amended. No new matter has been added. In view of the following remarks, reconsideration and allowance of all pending claims are respectfully requested.

The § 1.132 Declaration

A declaration filed on October 31, 2005 under C.F.R. § 1.132 was deemed ineffective to overcome the document entitled "Draft: Discovery of Web Services (DISCO)" (hereinafter "the DISCO document") because of a contradiction regarding authorship of the DISCO document. The first declaration, signed by Erik Christensen and Andrew Layman (see Appendix A), correctly identifies at paragraph 5 that the co-inventors of the present application (U.S. Patent Application Serial N0. 10/073670) authored the final version of the DISCO document. The second declaration, signed by Henrik Frystyk Nielsen, incorrectly identified at paragraph 5 that the technical content of the DISCO document was provided to the author of the DISCO document by the inventors. Applicants submit a revised second declaration, signed by Henrik Frystyk Nielsen (see Appendix B), that correctly identifies at paragraph 5 that the co-inventors of the present application authored the final version of the DISCO document. Thus, Applicants submit that the contradiction regarding authorship of the DISCO document is clarified.

The Office Action further deemed the declaration ineffective because submission of the final version of the DISCO document does not provide the background necessary to show that the original DISCO document was authored by the inventors. The Office Action states that the previously submitted email thread (see Appendix C) "implies that co-inventor Erik Christensen was involved in revisions to the DISCO document, however it does not show authorship." Applicants respectfully disagree.

As stated in the declaration at paragraph 5, the DISCO document was authored by the inventors. The inventor-authored version is provided at Appendix D. Applicants fail to understand why the evidence submitted on October 31, 2005 is insufficient to provide the background necessary to show that the DISCO document was authored by the inventors. The email thread provided at Appendix C clearly shows that the inventors submitted the DISCO

document to Sara Williams for the purpose of publication on the Microsoft developer network. An inventor-authored version was included as an attachment in an email sent from co-inventor Erik Christensen to Sara Williams, Andrew Layman, and John Shewchuk on July 7, 2000 at 3:03 PM. Andrew Layman and John Shewchuk discussed a typographical error in an exchange of four emails. Erik Christensen corrected the typographical error and provided an updated inventor-authored version of the DISCO document as an email attachment which was sent to John Shewchuk, Andrew Layman, Charles Fitzgerald, John Montgomery and Sara Williams on July 7, 2000 at 4:21 PM. The updated inventor-authored version of the DISCO document (as shown in Appendix D) includes content that is identical to the DISCO document that was published on the Microsoft developer network and that was cited as a prior art reference in the Office Action. Modifications made to the inventor-authored document by Sara Williams were for formatting purposes only. Applicants therefore submit that the email thread at Appendix C and the DISCO document at Appendix D provide the background necessary to show that the DISCO document was authored by the inventors.

The declaration under C.F.R. § 1.132 effectively overcomes the DISCO document. The effective filing date of the present application is February 9, 2001 which is the filing date of a provisional application that the present application claims priority to. The DISCO document was first published in July 2000, less than one year before the effective filing date of the present application. Therefore, the DISCO document does not qualify as prior art under 35 U.S.C. § 102(a). Reconsideration and removal of the rejection are therefore respectfully requested.

Rejections under 35 U.S.C. § 102(a)

The Office Action rejected Claims 1-19 under 35 U.S.C. § 102(a) as being anticipated by the DISCO document. As explained above, the DISCO document does not qualify as prior art under 35 U.S.C. § 102(a). Thus, the rejection under 35 U.S.C. § 102(a) is inappropriate and should be removed.

Rejections under 35 U.S.C. § 103(a)

The Office Action rejected Claims 1, 10-14, 16, 17 and 20 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,631,496 issued to *Li*. Claims 2-9, 18 and 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Li* and further in view of U.S. Patent No. 6,651,059 issued to *Sundaresan*. Claims 15, 19 and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Li* and further in view of U.S. Patent Publication No. 2003/0112270A1 by *Manning*. Claims 20-22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the DISCO document in view of U.S. Patent Publication No. 2003/0112270A1 by *Newell*. In view of the amendments and the following remarks, Applicants respectfully disagree.

Claim 1, as amended, recites a "A computer-implemented method for identifying metadata about a first resource identified by a first identifier, the method comprising: issuing a request for the first resource identified by the first identifier; parsing a response document received in response to the issued request, wherein the response document includes an indication that the metadata exists within a second resource identified by a second identifier, the indication identifying the metadata format; generating a request to retrieve the metadata from the second resource, wherein the generated request is formatted to support the metadata format identified by the indication; and retrieving the metadata from the second resource."

Li teaches a system for personalizing, organizing and managing web information. A hypermedia database for managing bookmarks allows a user to organize hypertext documents for querying, navigating, sharing and viewing. The hypermedia database also provides access control to the information in the database. The hypermedia database parses metadata from bookmarked documents, and indexes and classifies the documents.

Sundaresan teaches the automatic recognition of relevant terms by mining link annotations. The automatic mining system allows users to conduct searches expeditiously on all types of linked annotations. A metric is employed to sift relevant terms from a mining result. The automatic mining system scans downloaded hypertext link annotations in downloaded pages for related information, rather than scanning the entire body of the documents.

Manning teaches structured document management in a database. The structured documents comprise XML documents or other structured document types. Element schema may be determined from a document type definition in the XML managed structured documents. Alternatively, he XML document may be parsed to determine the element schema. The XML schema may also be provided which defines the element and attribute schema of the XML document.

Newell teaches a system for managing and providing access to litigation information stored on a computer network. The system includes a server computer coupled to the computer network for storing user interface information. The user interface information includes a primary page having a plurality of links to a plurality of secondary pages. The primary page identifies a plurality of categories and subcategories of litigation information. Each subcategory is logically related to at least one of the categories. The secondary pages provide litigation information related to the identified categories and subcategories. A client computer coupled to the computer network displays a user interface based on user interface information received from the server computer. The client computer is configured to access the plurality of secondary pages via the user interface.

Neither *Li* nor any of the other cited references, alone or in combination, teach the limitations recited in Applicants' Claim 1. Specifically, neither *Li* nor any of the other cited references teach "the response document includes an indication that the metadata exists within a second resource identified by a second identifier, the indication identifying the metadata format; [and] generating a request to retrieve the metadata from the second resource, wherein the generated request is formatted to support the metadata format identified by the indication..." Therefore, the cited prior art, neither alone nor in combination, does not anticipate nor make obvious Applicants' Claim 1. Applicants submit that Claim 1, as amended, is proposed to be allowable and notice to that effect is solicited.

Claims 11, 17 and 20 include substantially the same limitations discussed above in regard to independent Claim 1. As stated above, Claim 1 is proposed to be allowable. Therefore, independent Claims 11, 17 and 20 are proposed to be allowable for at least the same reasons as independent Claim 1, and notice to that effect is solicited.

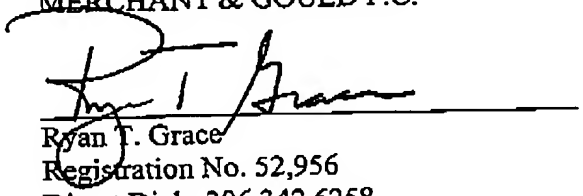
Furthermore, Claims 2-10, 12-16, 18, 19, 21 and 22 are dependent on allowable base claims and are therefore allowable for at least the same reasons that Claims 1, 11, 17 and 20 are allowable.

CONCLUSION

In view of the foregoing remarks, all pending claims are believed to be allowable and the application is in condition for allowance. Therefore, a Notice of Allowance is respectfully requested. Should the Examiner have any further issues regarding this application, the Examiner is requested to contact the undersigned attorney for the applicant at the telephone number provided below.

Respectfully submitted,

MERCHANT & GOULD P.C.



Ryan T. Grace
Registration No. 52,956
Direct Dial: 206.342.6258

MERCHANT & GOULD P.C.
P. O. Box 2903
Minneapolis, Minnesota 55402-0903
206.342.6200

APPENDIX A

Declaration under Rule 37 C.F.R. § 1.132 signed by Erik Christensen and Andrew Layman

(2 pages)

PATENT

S/N 10/073,670

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	CHRISTENSEN ET AL.	Examiner:	RIES, LAURIE A.
Serial No.:	10/073,670	Group Art Unit:	2176
Filed:	FEBRUARY 11, 2002	Docket No.:	50037.94USU1
Conf. No.:	4585	Customer No.:	27488
Title:	SYSTEM AND METHOD FOR DISCOVERING INFORMATION ABOUT WEB RESOURCES		

CERTIFICATE UNDER 37 CFR 1.6(d): I hereby certify that this correspondence is being sent via facsimile to ~~(303) 673-9306~~, Mail Stop Amendment, Commissioner for Patents, Attn: Examiner Laurie Ann Ries, P.O. Box 1450, Alexandria, VA 22313-1450 on 10/31/05, FAX No. 571-273-8300.

By: Alice Baum
Name: Alice Baum

DECLARATION UNDER 37 C.F.R. § 1.132

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Madam:

We, Erik Christensen, Andrew Layman, and Henrik Frystyk Nielsen, do declare and say as follows:

1. We are co-inventors of the subject matter recited in the claims of the present application (U.S. Patent Application Serial No. 10/073,670).

2. We have reviewed an Office Action dated March 7, 2005 relating to the present application. Our understanding is that the Examiner has cited "Draft: Discovery of Web Services (DISCO)" ("the DISCO document") against the present application under 35 U.S.C. § 102(a). We have further read the DISCO document.

3. The DISCO document was published in July 2000 on http://msdn.microsoft.com, which is the Microsoft developer network.

4. The present application is based on an earlier provisional application filed on February 9, 2001, which is within one year of publication of the DISCO document.

5. Appendix B includes a final version of the DISCO document authored by the inventors.

6. Appendix C includes an email thread dated July 7, 2000. The email thread includes inventor comments for suggested revisions to the DISCO document. The email thread also includes as an attachment the final version of the DISCO document authored by the inventors.

7. The email thread indicates that the final version of the DISCO document was sent from Erik Christensen (a co-inventor) to Sara Williams, a technical writer who prepares documents for publication on the Microsoft developer network.

8. The DISCO document published on the Microsoft developer network includes content that is identical to the DISCO document that the inventors authored and provided to Ms. Williams via email. Ms. Williams only made formatting modifications to the inventor-authored DISCO document before publishing the DISCO document.

9. We further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and the like are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

Date: Oct 14, 2005

Erik Christensen

Date: Oct. 14, 2005

Andrew Layman

Date:

Henrik Frystyk Nielsen

APPENDIX B

Declaration under Rule 37 C.F.R. § 1.132 signed by Henrik Frystyk Nielsen

(2 pages)

PATENT

S/N 10/073,670

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	CHRISTENSEN ET AL.	Examiner:	RIES, LAURIE A.
Serial No.:	10/073,670	Group Art Unit:	2176
Filed:	FEBRUARY 11, 2002	Docket No.:	50037.94USU1
Conf. No.:	4585	Customer No.:	27488
Title:	SYSTEM AND METHOD FOR DISCOVERING INFORMATION ABOUT WEB RESOURCES		

CERTIFICATE UNDER 37 CFR 1.6(d): I hereby certify that this correspondence is being sent via facsimile to (703) 872-9306, Mail Stop Amendment, Commissioner for Patents, Attn: Examiner Laurie Ann Ries, P.O. Box 1450, Alexandria, VA 22313-1450 on _____

By:_____
Name:

DECLARATION UNDER 37 C.F.R. § 1.132

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Madam:

We, Erik Christensen, Andrew Layman, and Henrik Frystyk Nielsen, do declare and say as follows:

1. We are co-inventors of the subject matter recited in the claims of the present application (U.S. Patent Application Serial No. 10/073,670).

2. We have reviewed an Office Action dated March 7, 2005 relating to the present application. Our understanding is that the Examiner has cited "Draft: Discovery of Web Services (DISCO)" ("the DISCO document") against the present application under 35 U.S.C. § 102(a). We have further read the DISCO document.

3. The DISCO document was published in July 2000 on http://msdn.microsoft.com, which is the Microsoft developer network.

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7. The email thread indicates that the final version of the DISCO document was sent from Erik Christensen (a co-inventor) to Sara Williams, a technical writer who prepares documents for publication on the Microsoft developer network.

8. The DISCO document published on the Microsoft developer network includes content that is identical to the DISCO document that the inventors authored and provided to Ms. Williams via email. Ms. Williams only made formatting modifications to the inventor-authored DISCO document before publishing the DISCO document.

9. We further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and the like are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

Date: _____ Erik Christensen

Date: _____ Andrew Layman

Date: MAR 16 2006 Henrik Frystyk Nielsen

APPENDIX C

Email Thread dated July 7, 2000 (2 pages)

From: Erik Christensen (FX) [erikc@microsoft.com]
Sent: Friday, July 07, 2000 4:21 PM
To: John Shewchuk; Andrew Layman; Charles Fitzgerald; John Montgomery
Cc: Sara Williams
Subject: RE: Before printing the Disco spec ErikC wants to do a couple of quick edits...

okay, one more time. updated version on http://magnet/disco/disco.htm and attached.

-erik
<<disco.css>> <<disco.htm>>

-----Original Message-----
From: John Shewchuk
Sent: Friday, July 07, 2000 3:42 PM
To: Andrew Layman; Charles Fitzgerald; John Montgomery
Cc: Erik Christensen (FX); Sara Williams
Subject: RE: Before printing the Disco spec ErikC wants to do a couple of quick edits...

Sorry typo. SOAP Contract Language is correct. Long couple of days ;-)

-----Original Message-----
From: Andrew Layman
Sent: Friday, July 07, 2000 3:37 PM
To: John Shewchuk; Charles Fitzgerald; John Montgomery
Cc: Erik Christensen (FX); Sara Williams
Subject: RE: Before printing the Disco spec ErikC wants to do a couple of quick edits...

Then you need to change the Intro slightly, which says "SOAP Contract Language."

-----Original Message-----
From: John Shewchuk
Sent: Friday, July 07, 2000 3:35 PM
To: Andrew Layman; Charles Fitzgerald; John Montgomery
Cc: Erik Christensen (FX); Sara Williams
Subject: RE: Before printing the Disco spec ErikC wants to do a couple of quick edits...

That is correct.

Just checked with CharlesF and he wants it to be SOAP Control Language.

-John

-----Original Message-----
From: Andrew Layman
Sent: Friday, July 07, 2000 3:06 PM
To: Erik Christensen (FX); John Shewchuk; Sara Williams
Subject: RE: Before printing the Disco spec ErikC wants to do a couple of quick edits...

The Disco doc referrs to "Service Description Language (SDL)". I gather this should now be "SOAP Contract Language (SCL)".

-----Original Message-----
From: Erik Christensen (FX)
Sent: Friday, July 07, 2000 3:03 PM
To: Andrew Layman; John Shewchuk; Sara Williams
Subject: RE: Before printing the Disco spec ErikC wants to do a couple of quick edits...

Here is the updated disco spec. I will call Sarah now.

<< File: disco.css >> << File: disco.htm >>
Also on http://magnet/disco/disco.htm.

-Erik

-----Original Message-----
From: Andrew Layman
Sent: Friday, July 07, 2000 2:21 PM
To: John Shewchuk; Sara Williams
Cc: Erik Christensen (FX)
Subject: RE: Before printing the Disco spec ErikC wants to do a couple of quick edits...

Sara called me and said her mail is not working, best to phone her.

-----Original Message-----
From: John Shewchuk
Sent: Friday, July 07, 2000 2:17 PM
To: Sara Williams
Cc: Andrew Layman; Erik Christensen (FX)
Subject: Before printing the Disco spec ErikC wants to do a couple of quick edits...
Importance: High

APPENDIX D

Applicant's last version of the DISCO document that was submitted to Sara Williams as an email attachment on July 7, 2000 (4 pages)

Discovery of Web Services (DISCO)

Early Draft, 06 July 2000

Introduction

Web Services are described in one or more related documents using the SOAP Contract Language (SCL). This document proposes how SCL documents can be retrieved for a resource or collection of resources, e.g. how information about a service is **discovered**. Note that this discovery algorithm it is not limited to discovering information about web services; it can be used to find metadata about any resource.

There are other existing mechanisms for discovery (DAV, RDF, ...) that are just as valid for discovering services. This document does not attempt to be an exhaustive list but instead proposes two lightweight mechanisms that are likely to work with existing infrastructure.

Notational Conventions

The keywords "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in RFC-2119 [2].

The namespace prefixes "disco", "scl", "schema" and "soap" used in this document are associated with the DISCO namespaces "http://schemas.xmlsoap.org/disco/", "http://schemas.xmlsoap.org/disco/scl/", "http://schemas.xmlsoap.org/disco/schema/" and "http://schemas.xmlsoap.org/disco/soap/".

Status

This draft represents the current thinking with regard to discovery of services within Microsoft. It is published by Microsoft for the purpose of informing interested parties of the current state of that thinking, not as a finished proposal or commitment to implement. Microsoft will not allow early implementation to constrain its ability to make changes to this specification prior to final release.

Table of Contents

1. Discovery Algorithm

The discovery algorithm is based on the existence of a discovery document format (an XML grammar). A discovery document is the result of performing discovery on a resource. A discovery document contains links to other resources describing or otherwise related to the resource (Service Contracts, Schemas, etc). A discovery document may refer to related discovery documents. The details of the discovery document format are covered in section 2.

The following algorithm allows a client to retrieve a discovery document given the URL of a resource. The algorithm is independent of what the URL represents. For example, it could be the URL of the site, the URL of a folder within the site, the URL of a particular service within the site, etc.

To obtain the discovery document ***D*** associated with a URL ***U***:

- Perform an HTTP GET on ***U*** producing response ***R***
- If the HTTP content-type of ***R*** is "text/xml":
  - If ***R*** contains a discovery document, it is the discovery document **D**
  - Otherwise, if there is an xml-stylesheet processing instruction within the content of ***R*** with at least the following attribute values:
    - type='text/xml'
    - alternate='yes'
    - href='***U2***'

    Then
    - Perform an HTTP GET on ***U2*** producing response ***R2***
    - If ***R2*** contains a discovery document, it is the discovery document ***D***
    - Otherwise, there is no discovery document ***D*** available for ***U***
  - Otherwise, there is no discovery document ***D*** available for ***U***
- If the HTTP content-type of ***R*** is "text/html":
  - If there is an occurrence of a LINK tag within the content of ***R*** with at least the following attribute values:
    - type='text/xml'
    - rel='alternate'
    - href='***U2***'

    Then
    - Perform an HTTP GET on ***U2*** producing response ***R2***
    - If ***R2*** contains a discovery document, it is the discovery document ***D***
    - Otherwise, there is no discovery document ***D*** available
- Otherwise, there is no document ***D*** available for ***U***

The following MUST be true in order for an HTTP response to be considered a discovery document:

- The content-type of the HTTP response is "text/xml".
- The name of the root XML element conforms to the discovery document format.
- Either the XML namespace is not specified, or it matches that of the discovery document format.

See http://www.w3.org/TR/xml-stylesheet/#XML for more information on the **xml-stylesheet** processing instruction.
See http://www.w3.org/TR/html401/struct/links.html#edef-LINK for more information on HTML's LINK element.

2. Discovery Document Format

The discovery document format is a container for elements that typically contain links (URLs) to resources that provide discovery information. If the URL's are relative, they are assumed to be relative to the location of the discovery document.

The following example discovery document refers to another discovery document, a Service Contract

document, a schema document, and HTML based documentation for the service.

```
<disco:discovery>
  <disco:discoveryRef ref='folder/discovery' />

  <-- elements from other namespaces -->
</disco:discovery>
```

The schema for the discovery document is neutral as to what types of things are being discovered. It relies on elements from other namespaces to provide the actual linking mechanisms specific to a resource type or category.

The only linking element defined intrinsically is **discoveryRef**, which refers to another discovery document. The value of the **ref** attribute is the URL of the discovery document.

Discovery documents may include the XML namespace "http://schemas.xmlsoap.org/disco/" for the **discovery** tag. Programs processing these documents **MUST** read and understand the namespace and **SHOULD** reject documents where the namespace is present and different.

Programs processing discovery documents **SHOULD** ignore any unrecognized elements under the **discovery** tag to allow extensibility of the format.

A discovery document **MAY** have an XML style sheet processing instruction.

3. SCL and discovery

The following elements are defined by the XML namespace "http://schemas.xmlsoap.org/disco/scl/" for use within discovery documents.

3.1 contractRef

The **contractRef** element refers to service defined using the SOAP Contract Language (SCL). The value of the **ref** attribute is the URL of the document. The value of the optional **docRef** attribute is the URL to human readable documentation for the service.

The following example refers to two service contracts:

```
<disco:discovery>
  <scl:contractRef ref='my1.sdl'>
  <scl:contractRef ref='my2.sdl' docRef='my.htm'>
</disco:discovery>
```

4. Schemas and discovery

The following elements are defined by the XML namespace "http://schemas.xmlsoap.org/disco/schema/" for use within discovery documents.

4.1 schemaRef

The **schemaRef** element refers to an XML schema. The value of the **ref** attribute is the URL of the schema. The optional **targetNamespace** attribute indicates the namespace of the schema.

The following example refers to two schemas:

```
<disco:discovery>
  <schema:schemaRef ref='my1.xsd' targetNamespace='http://my.org/my1.xsd'/>
  <schema:schemaRef ref='my2.xsd'/>
</disco:discovery>
```

5. SOAP and discovery

The following elements are defined by the XML namespace "http://schemas.xmlsoap.org/disco/soap/" for use within discovery documents.

5.1 soap

The **soap** element specifies the location of a soap service with a particular soap **binding** that has been defined in a SCL document. The **binding** attribute contains a QName value. The URI portion of the QName refers to the targetNamespace of a SCL document. The name portion of the QName refers to a **binding** within that SCL document. The value of the **address** attribute is the URL of the soap service.

The following example provides information about two web services:

```
<disco:discovery>
  <soap:soap binding='my1:binding1' address='my1'>
  <soap:soap binding='my1:binding2' address='my1'>
  <soap:soap binding='my1:binding1' address='my2'>
</disco:discovery>
```

Although this information is available by reading a SCL document, this lightweight mechanism allows easier processing by clients attempting to find the location of a service with a known binding.